ABSTRACT

IT departments of all sizes are turning their attention to IT business governance and IT service governance in particular. Both IT Infrastructure Library (ITIL) and Control Objectives for IT (COBIT) provide possible frameworks for this transition. While neither framework is brand new, their adoption-rates have recently soared. Forrester Research predicts that 80% of large organizations will rely on ITIL by the end of 2008 (Crossman, 2006). While COBIT provides guidelines needed to satisfy SOX legislation, ITIL offers best practices for improving IT service management. Implementing process frameworks however is not easy. There are many questions to answer including, how to get started, what will it cost, and how to ensure success. The purpose of this study is to provide a case-based assessment of the advice given in the literature by describing three small- to medium-sized enterprises’ (SMEs) experiences with implementing ITIL frameworks. The paper chronicles the experiences of three companies at implementing the same Configuration Management Database software (CMDB).

Keywords: ITIL, COBIT, Service-Oriented Architecture (SOA), IT governance, case study, SME (Small- and Medium-size Enterprise)

INTRODUCTION

IT departments of all sizes are turning their attention to IT business governance and IT service governance in particular. Both IT Infrastructure Library (ITIL) and Control Objectives for IT (COBIT) provide possible frameworks for this transition. While neither framework is brand new, their adoption-rates have recently soared. For example, Forrester Research predicts that 80% of large organizations will rely on ITIL by the end of 2008 (Crossman, 2006). While COBIT provides guidelines needed to satisfy SOX legislation, ITIL offers best practices for improving IT service management.

Implementing process frameworks however is not easy. There are many questions to answer including, how to get started, what will it cost, and how to ensure success. Much of the literature on the real world hardships comes from large organizations – those with hundreds employed in IT. However SMEs need improved governance too. Equally challenging is that smaller
organizations have smaller budgets, leaner teams, and arguably a higher risk of failure. A change of culture at smaller organizations is just as risky as in larger environments.

The purpose of this study is to provide a case-based assessment of the advice given in the literature by describing three SMEs’ experiences with implementing ITIL or COBIT frameworks. The paper chronicles the successes of three companies at implementing a Configuration Management Database (CMDB) product named Samantha™, which was developed by Net Watch Solutions, a Dallas-based start-up. Our three SMEs are Hunt Petroleum, Interstate Batteries and MetroPCS, each of which leveraged improvements with IT change management. Interestingly, none of the firms had a budget or a planned “ITIL or governance initiative”. However, each was successful in their approach.

This paper, with Samantha™ statistics and interviews from each firm’s CIOs, managers, and staff all highlight the motivations, impacts and successes from the case company’s IT governance initiatives. We relate these experiences to the research literature on governance initiatives, describe ten lessons learned.

**IT GOVERNANCE FRAMEWORKS**

Of the plethora of IT governance standards and frameworks that are available (e.g., CMMI, COBIT, ITIL, MOF, ISPL\(^1\), ASL\(^2\), ISO, Six Sigma, DSDM\(^3\)), ITIL is the one that many IT professionals have heard of, and many IT departments are now adopting. Indeed, even though ITIL (Information Technology Infrastructure Library) has been around since the late 1980s, its adoption-rate among US companies has recently soared. For instance, Forrester Research predicts that 80% of large organizations will rely on ITIL by the end of 2008 (Crossman, 2006).

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\(^1\) The Information Services Procurement Library (ISPL) is a best practice library for the management of Information Technology related acquisition processes. ISPL focuses on the relationship between the customer and supplier organization.

\(^2\) The Application Services Library (ASL) is a public domain standard, which describes processes within Application Management.

\(^3\) DSDM is a method that provides a framework for Rapid Application Development (RAD).
CASE STUDIES

This paper covers the experiences of three SMEs, which either consciously, or without knowing it, implemented an IT Governance initiative focused around ITIL or COBIT frameworks. The three firms each began their journey with different motivations, but ultimately, each focused on IT Change Management as a catalyst for improvement. All of the case companies implemented a software product, Samantha™ from Net Watch Solutions Inc. because of its change management capabilities, coupled with its asset management repository. All of the companies also relied on a vendor to lead their efforts.

Interviews were conducted at three levels by an independent academician and by the vendor and paper co-author, Peter Beasley, co-author and vendor, to get a more balanced perspective on the initiatives:

1. Within: CIO and senior IT management
2. Within: Mid-level IT administrative or project management
3. Within: Individual employees
4. Outside: The CTO of the vendor

This study provides an experience-rich exposé of the real-life problems these case companies faced in dealing with service management within an IT organization.

1. **Hunt Petroleum (HPC):** Hunt Petroleum is an oil & gas refining, production and exploration firm headquartered in Dallas, Texas. The IT function was led by Kevin Leaverton, CIO. Hunt Petroleum has 400 employees with 15 people in IT. Statistics from Samantha™ describe the technology environment as shown in Table 1.

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4 We classified SMEs as having between 15 to 100 full time equivalents (FTEs) working in the IT Function. A convenience sample of the over 100 SIM member firms in the DFW area showed that approximately 56% of all SIM DFW area IT organizations have 100 or fewer IT employees. (Source: DFW SIM Chapter Survey by Becker (2005))
Mr. Leaverton was recruited as the CIO in March of 2004. After implementing a Help Desk function using Intuit TrackIT in August 2004, Hunt Petroleum implemented Samantha™ in January of 2005, to build an asset repository, but became aware of the Change Management benefits. The project to implement the product and build the CMDB repository began November 2004 with a 60-day implementation period. In addition, they relied on the vendor to establish a change management procedure and later expanded their governance initiative to 1) business impact assessments, 2) disaster recovery planning, and 3) contract management. Prior to this initiative Hunt Petroleum used Excel spreadsheets for asset management.
2. Interstate Batteries (IBSA): Interstate Batteries is in the wholesale distribution and retail industry and has its corporate headquarters in Dallas, TX. The IT function is led by Merv Tarde. Interstate Batteries has 90 people in IT. Statistics from Samantha™ describe the technology environment as shown in Table 2.

### Table 2

**Interstate Batteries Samantha™ System Summary**

<table>
<thead>
<tr>
<th>Sites Supported</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client Groups Supported</td>
<td>19</td>
</tr>
<tr>
<td><strong>Shared System Applications</strong></td>
<td></td>
</tr>
<tr>
<td>Databases</td>
<td>49</td>
</tr>
<tr>
<td>Other Applications</td>
<td>327</td>
</tr>
<tr>
<td>Total Applications</td>
<td>376</td>
</tr>
<tr>
<td><strong>Servers</strong></td>
<td></td>
</tr>
<tr>
<td>Active Production</td>
<td>77</td>
</tr>
<tr>
<td>Test</td>
<td>3</td>
</tr>
<tr>
<td>Development</td>
<td>5</td>
</tr>
<tr>
<td>Utility</td>
<td>10</td>
</tr>
<tr>
<td>Total Active Servers</td>
<td>95</td>
</tr>
<tr>
<td>Non-Active Servers</td>
<td>37</td>
</tr>
<tr>
<td>Total Servers</td>
<td>132</td>
</tr>
<tr>
<td><strong>Network Devices</strong></td>
<td></td>
</tr>
<tr>
<td>Active Switches</td>
<td>19</td>
</tr>
<tr>
<td>Active Routers</td>
<td>11</td>
</tr>
<tr>
<td>Other Active Devices</td>
<td>14</td>
</tr>
<tr>
<td>Total Active Network Devices</td>
<td>30</td>
</tr>
<tr>
<td>Non-Active Network Devices</td>
<td>30</td>
</tr>
<tr>
<td>Total Network Devices</td>
<td>60</td>
</tr>
</tbody>
</table>

When the Samantha™ project began, Interstate Batteries already had a mature change management process and used FrontRange HEAT for the Help Desk function. The change process included weekly meetings and paper documents that were signed by individuals to approve changes. There were no prescribed change windows and changes could be made without any minimum number of day’s notice. The project to implement the product and build the CMDB repository began October 2005 and the product usage began December 2005 with a 60-day implementation period. After focusing on change management and building the asset repository, financial management of contracts and application relationship mapping became subsequent areas of focus.
3. **MetroPCS (MPCS):** MetroPCS is a fast-growing cellular provider with a long-term plan to go public. The IT function underwent a leadership change during the review period of this study. The Samantha™ implementation in 2005 was led by Rick Doucette, VP of IT. MetroPCS crossed from 1,500 to 3,000 employees, with 32 people in IT. MetroPCS’ initiative started with an ITIL focus, successfully implementing a CMDB, but later switched to a COBIT focus in preparation of meeting forthcoming SOX requirements.

Mr. Doucette was recruited to MetroPCS in March of 2005, then reporting to the CFO, there were 3 FTEs and 2 contractors in the central IT function. Actually, IT activities were spread across multiple business units, such as Accounting, Engineering, and Regional Retail Markets, each of which had their own IT contingents.

The project to implement the product and build the CMDB repository began July 2005 with a 60-day implementation period. After focusing on change management and implementing the asset repository, they expanded their governance initiative to include 1) asset management procedures, 2) a service desk implementation using an .ASP solution named Triactive System Manager, 3) incident management, 4) problem management, 5) enhanced security procedures, 6) performance metrics and 7) operational controls. Samantha™ statistics describe the current technology environment at MetroPCS (See Table 3 below).

**Significant Similarities:** Some significant similarities among the case studies are:

- All are private companies with sales in the $30M to $500M range with headquarters in the Dallas/Ft Worth area
- All organizations have less than 100 people in the IT function
- All of the organizations had heard of ITIL, but none had a defined ITIL project underway or contemplated prior to this study
- None of the organizations were using this project in an effort to change the culture or to directly implement a specific IT Governance strategy
- None of the organizations had a planned budget for the Samantha™ implementation
- All organizations built their asset repositories within 60 days
- All organizations relied on the same vendor to facilitate their governance initiatives
- Both Hunt Petroleum and MetroPCS had new IT area leaders
- Neither Hunt Petroleum or MetroPCS had mature change management procedures
- Both Hunt Petroleum and Interstate Batteries already had Help Desk and Incident Management procedures
- None of the organizations have a mature Problem Management procedure

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**Table 3**

**MetroPCS Samantha™ System Summary**

<table>
<thead>
<tr>
<th>Sites Supported</th>
<th>29</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client Groups Supported</td>
<td>25</td>
</tr>
</tbody>
</table>

**Shared System Applications**

| Intra-Company | 72 |
| External-Company | 12 |
| System Applications | 109 |
| Database Applications | 21 |
| Other Applications | 14 |
| **Total Applications** | **228** |

**Servers**

| Active Production | 77 |
| Test | 3 |
| Development | 5 |
| Utility | 10 |
| **Total Active Servers** | **95** |
| Non-Active Servers | 37 |
| **Total Servers** | **132** |

**Network Devices**

| Active Switches | 80 |
| Active Routers | 29 |
| Other Active Devices | 15 |
| **Total Active Network Devices** | **124** |
| Non-Active Network Devices | 68 |
| **Total Network Devices** | **192** |

**Significant Dissimilarities**

- Very different industries: Petroleum manufacturing, wholesale automobile batteries, and wireless communications
- Interstate Batteries has a CIO with a nearly 8-year tenure (compared to 2 years or less at Hunt and MetroPCS)
- Interstate Batteries had a mature, yet manual, Change Management process
- Interstate Batteries has a mature Help Desk and Incident Management function
- MetroPCS had a corporate-led SOX requirement that impacted the IT function
- MetroPCS was undergoing such dramatic growth that culture changes were ongoing
- Hunt Petroleum recognized the governance initiative would impact culture, but correctly anticipated the staff would easily adopt to this change

**Net Watch Solutions (NWS):** Net Watch Solutions is a Dallas-based solutions company with both products and services focused on the business management of IT infrastructures. They developed the Samantha™ configuration management database product and implemented the governance initiatives at each of the case companies. The company is led by Peter Beasley, CTO. Net Watch Solutions has 10 employees and contractors.
THE ROLE OF IT GOVERNANCE

IT governance entails the creation and control of organizational structures and processes, both internal to and outside of the IT department, through which rights and responsibilities regarding IT decisions are distributed. According to Weill (2004, p.3), “IT governance represents the framework for decision rights and accountabilities to encourage desirable behavior in the use of IT.” Adapting Weill’s work, Brown and Grant (2005, p. 698) highlight that IT governance comprises the following three components:

1. Who is responsible for IT investment activities? (decision rights)?
2. Who provides input into IT investment activities? (input rights)?
3. What controls (accountability measures) are in place to ensure that IT activities are carried out positively?

Whereas most academic research on IT governance focuses primarily on the organizational structures through which IT decision and input rights were dispensed, e.g., centralized, decentralized or hybrid IT departments (Sambamurthy and Zmud, 1999, 2000; Weill and Ross, 2005; Brown and Grant, 2005), recent industry developments have shifted the IT governance focus to processes. With SOX creating increased awareness of the need for organizational governance in general, IT governance standards and frameworks including CMMI, the ISO standards, ITIL and COBIT are now used to define organization’s IT governance efforts. Most of these frameworks focus on processes, such as incident management, problem management and back-up and recovery, rather than organizational structures. As such, it is not surprising that the academic literature on IT governance is out of step with practices (Sambamuthy and Zmud, 2000).

ITIL

The IT Infrastructure Library (ITIL) is a library of books developed in late 1980s by the UK government to encourage all its vendors of IT services to identify and capture best practices. ITIL is now owned by UK Office of Government Commerce (OGC). This books and framework consists of 7 areas (See Figure 2). There is a defined interplay of the various books in managing an IT enterprise.

Figure 2
The Seven ITIL Books
The two most popular of the ITIL books are Service Delivery and Service Support with their disciplines around Service Level Management, Financial Management for IT Services, Capacity Management, IT Service Continuity and Availability Management, Incident Management, Problem Management, Change Management, Configuration Management and Release Management plus the Service Desk function.

Recent ITIL adoption also appears to be buoyed by the increasing recognition of its benefits:

- Gartner reported that full adoption of ITIL cuts organizations’ cost of IT ownership by 50% (Dubie 2004);
- ITIL’s focus on service delivery makes IT organizations more customer-centric (Thibodeau 2005) and helps improve the value that IT delivers to the business (Margulius 2004);
- ITIL helps IT staff recognize the interdependence of IT tasks, thus heightening awareness of the impact that touching one part of system has on another part (Dubie 2004); this promises to improve integration and coordination across the different functional IT silos;
- ITIL provides a common language making coordination within the IT department and across outsourcing vendors more effective; this facilitates end-to-end service delivery (Margulius 2004) and improves service quality (Violino 2005); and
- ITIL provides companies with a useful template or starting point for mapping their IT processes, thus alleviating the paralysis associated with starting with a blank page (Dubie 2005a).

The literature also provides IT professionals with considerable advice on how to succeed with ITIL. This advice can be categorized loosely into three aspects: (a) how to start ITIL adoption, (b) how to manage adoption within the IT organization, and (c) the role of IT tools in ITIL adoption.
IT Service Management

IT Service Management (ITSM) is a discipline for managing large-scale information technology (IT) systems, philosophically centered on the customer’s perspective of IT’s contribution to the business. ITSM stands in deliberate contrast to technology-centered approaches to IT management and business interaction (Wikopedia, (2006)), but is frequently cited as a primary enabler of IT Governance objectives. The following represents a characteristic statement from the ITSM literature:

“Providers of IT services can no longer afford to focus on technology and their internal organization, they now have to consider the quality of the services they provide and focus on the relationship with customers.” [IT Service Management Forum (2002)]

ITSM is generally concerned with "back office" information technology for enterprises, not the technology that is a company's primary product. Most all organizations have significant information technology systems which are not exposed to customers.

COBIT

The Control Objectives for Information and related Technology (COBIT) is a set of best practices (framework) for information (IT) management created by the Information Systems Audit and Control Association (ISACA), and the IT Governance Institute (ITGI) in 1992. COBIT provides managers, auditors, and IT users with a set of generally accepted measures, indicators, processes and best practices to assist them in maximizing the benefits derived through the use of information technology and developing appropriate IT governance and control in a company.

A recent IT Governance Institute study, “IT Governance Global Status Report – 2006,” found COBIT awareness increased by 50% since 2006—from 18% to 27% of the general survey population. However, the same survey concluded that COBIT is not as easily implemented as originally estimated (IT Governance Institute, 2006).

All executives agreed that while there clearly were some COBIT initiatives that should be undertaken, it was far better for them to focus immediately on their immediate asset management needs within an ITIL framework approach. They perceived this approach would lead to more immediate and cost-effective improvements.
THE SOLUTION

Each company implemented their solution using a blend of People, Process, Products and Partners (See Figure 4).

Figure 4: ITIL People, Process, Products and Partners

Source: [http://www.ogc.gov.uk/sdtoolkit/deliveryteam/briefings/ITIL/intro.html](http://www.ogc.gov.uk/sdtoolkit/deliveryteam/briefings/ITIL/intro.html)

People

Various people within the organizations are key to a successful ITIL implementation. Hands-on involvement from the top, the CIO in most cases, often signals how quickly the benefits from the solution will be obtained. The NWS approach builds on and casts visibility to the underlying infrastructure – servers, databases, network devices, and their associated interconnections. The early, positive contribution of the Network Manager lowers the overall project cost and minimizes the risk of the old adage, “garbage in, garbage out

The key stakeholders were the CIO, Infrastructure Management, Applications Management, Network Manager, Operations Management, network professionals, and support desk professionals. In the larger organization, Interstate Batteries, the Change Manager, QA, Project Management, and Technical Architecture groups were included.

Interstate Batteries assigned a formal project manager to lead the effort. Hunt Petroleum managed the vendor-led effort through the Network Manager. MetroPCS managed the vendor-led effort right at the top, from the VP of IT.

Hunt Petroleum and MetroPCS allowed end-user departments to be a part of the process – with interviews being conducted with HPC Finance, HPC Exploitation, the MPCS Controller, MPCS Accounting, MPCS Billing, MPCS Human Resources, and MPCS Engineering. The vendor took a somewhat evangelist role, helping to seed the upcoming governance activities with customer groups that can become allies.
Process

The initial Assessment had some key deliverables: 1) readiness rating of the organization, 2) a baseline of the existing infrastructure, 3) roadmap for success, 4) detailed project plan and 5) a recommendations presentation. In each case, added process work was recommended.

Both HPC and MPCS undertook a vendor-facilitated process to seed the adoption of the upcoming new change management procedures. This effort involved a Kick-off Meeting with the entire IT department, vendor-led training sessions, and culminated in formal documents Change Management Policy, Change Management Procedure, Change Management Definitions, and with MetroPCS, Change Management Controls.

At Interstate Batteries, recommendations were made on how to enhance the change process but no formal documents were created. Rather than a formal kick-off meeting, there was a brief project overview and product demonstration at a monthly department-wide meeting.

Product


As a CMDB, Samantha™ employed a federated model, retrieving data from other network-aware tools such as Active Directory. Adapters import and exchange data from popular Network Systems Management tools such as HEAT, Remedy, and OpenView.

Partner

All of the organizations stated that they were busy and understaffed--What IT department is not? The vendor in each of these cases attempted to solve the particular business problems with methods that fit their culture. The results were staged and delivered around the concepts in the Service Delivery and Service Support books. While the text-book approach for ITIL implementations requires an ongoing effort, significant benefits can often be achieved in weeks, and not months.
The Cost

All of the organizations were cautious in dealing with a start-up company and an early-stage product. Contractual considerations were made by each to protect the case-companies in the event the vendor collapsed. Still, early adopters of new IT and customers of startup vendors can win competitive advantage and other treasures. (Lindquist, 2005). Some become early adopters when they find no mature technology to meet their needs, the solution is just right for the job or as a calculated attempt to save gobs of money. Implementation costs at the three organizations ranged from $40,000 to $75,000.

MAKING IT WORK

Most organizations greatest fear today is that they will not be able to keep their governance systems up to date. This can lead to a decision to do nothing. Few dispute that there is room for improvement in how they manage the business metrics of the IT environment. Unfortunately, organizations have gone down the path to ‘nirvana’ before, using many vendor-named initiatives (SOX, RTE, SOA, etc.), and ended up somewhere near the ‘Land of Oz.’ There is a deep-seated belief that IT people cannot succeed at governance unless some magic technology will do it for them. Five years ago, apathy and ignorance were the leading road-blocks, but with ITIL and the current governance climate, people get it and recognize they must be successful in these areas. Time and cost constraints are real, but they exist with every project in IT. Approach the problem strategically, tactically and successfully

Changing the Established Culture

MetroPCS, as a fast-growing company, had the unique opportunity to set the culture within the newly formed IT function as it grew. In their new governance programs, Normal changes required two (2) weeks notice\(^6\), all changes required both an Implementation and Test Plan, and an externally facing Change Advisory Board (CAB) was implemented with the hopes for active participation from the business units. But still, there was a culture external to IT within the company, that as a service provider, the IT function would ultimately impact.

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\(^6\) Provisions did allow for Urgent, out of process changes, but Controls were set that these be managed to be less than 30% of all changes.
“One lesson learned is probably to foster a stronger connection with the business and the senior management team of the business, and stronger communication as to the success and the importance of this type of governance.” -- Rick Doucette, former VP of IT, MPCS.

Interstate Batteries recognized this fact about the business culture right up front, “The responsiveness expectations that we have set in our environment, in our culture, to only be able to do things in a 2-week window, would be a huge cultural shift.” (Janet Karch, Director Technical Services and Support, IBSA)

**Fighting Resistance**

Be prepared to find resistance from the business units, senior management, external vendors, the IT staff, and from other unexpected places. Co-author Beasley noted, “As the vendor with each of these case companies, we saw many forms of resistance from people. The easiest to spot and manage are from the IT technologists – the engineers, analysts and those who have often been bruised over the years and work very hard to maintain the status quo. Passive aggression is the most likely outcrop – it is simply too easy to allow ‘business urgencies’, a tough technical problem, or some new imperative to keep people away from the governance activities. We see it mostly in a lack of attendance to meetings, a failure to resolve data inconsistencies, or a general disinterest.” Resistance drives up the cost of the program and causes the benefits to take longer to be realized.

Both Hunt Petroleum and MetroPCS took the vendor’s recommendation and implemented plans right up front to help the people through the change. This included frequent dinner gift vouchers, tickets to arena league football games, contests embedded in the implementation and Samantha training program, a trip to Las Vegas, and a Fish Bowl to recognize those who went above and beyond. At Interstate Batteries, these types of incentives were not in keeping with the existing culture.

**Look for Allies along the Way**

Some corporate objectives can help get a governance program underway. “Because of the control weaknesses and the large spotlight and focus and magnifying glass around that, I could implement a lot of governance and change, because I would say that if we don’t do it now, it’s going to be a control weakness. So as soon as you say that they go, ‘okay’. So I had attention. We had such a black eye because of the lack of best practices, governance, and procedures,
that anybody that said, ‘hey we’re going to fix that’, and the reaction was, ‘Let’s do it. Whatever it is, do it quickly…’ and because there was an ‘X’ or a bad mark, it was easy for me to say, hey listen, for $100K, for $50K, or whatever, that’ll go away. ‘Okay, good, go!’ … and by the end of 2005, we had all of our control weaknesses done.”  (Rick Doucette, former VP of IT, MPCS).

You can find allies amongst the technology staff, especially the ones who have worked in large environments. “Yes, the introduction of change management was very much welcome. From a network standpoint, it allowed us to do our job effectively. If you made a change and you’re trying to optimize the network and then someone is able to go back in there and make a change and you don’t know nothing about it, that can kill your network and what you’re trying to do.”  (Terry Houston, Senior Network Engineer, MPCS)

**Maintaining your Program through Change Management**

A key tenet of a successful program is to make it operational and since the change process is continual, leveraging change management can keep your governance operational. “We do use the forward change schedule as a summary of the change management events and that is actually published outside of Samantha. We get feedback from people not involved in change management, saying, ‘Hey I see this is going’, or, ‘Hey, I thought that something was going to be changed and it is not’. Several people have reviewed the report; actually Merv (the CIO) has reviewed the report and said, ‘I did not expect that’. That is at least one report that we use every week.”  (Matt Brown, Technical Architect, IBSA)

A method to keep the program going is to ensure the people who put information into the system, get something out. “One of my administrators came to me during our annual evaluation period and presented to me her change summary statistics. She was able to prove she
completed the most changes and had the highest effectiveness rating. I gave her a raise.” (Kent Jackson, Network Manager, HPC).

“With Samantha we now have a central repository, but the challenge going forward is just keeping it up to date, with everybody’s workloads, like in any company. They have to know that it’s just part of doing business; part of your everyday job. It’s administrative work.” (Merv Tarde, CIO, IBSA) At Hunt, they phrased it differently, “We treat the asset repository as authoritative. The servers and network devices are accurate. Everyone knows this is where we put information about our assets, as we acquire them, and as they change.” (Darren Edgerton, Senior Network Engineer, HPC)

The Role of Innovation

As stated earlier, all of the companies took a gamble on a new, innovative product. Ways to win at this game are to 1) limit the scope of the implementation, 2) investigate the vendor’s management expertise with the subject technology, 3) protect yourself in case the vendor goes out of business, and 4) include other people outside of IT involved in the decision. (Lindquist, 2005).

Innovation may include create ways to deal with people’s adoption of change. “Kevin [Leaverton] did something that none of his predecessors had done — He asked his employees to help select the management software we are going to use.” (Several managers, HPC) By empowering his employees, he also energized them and obtained their support for the product and the upcoming process changes.

What New Metrics or Capabilities Helped Your Success?

Virtual Change Approvals. “The improvement is that it used to be that you had to get signed forms and we introduced a different way for electronic approval of changes that will have happen before the next change management meeting. I do think change meetings have improved because of this. I don’t know that making it easier to get approvals has the
increased the number of off-cycle changes. I really think the alternative has happened. That is, the ease of documenting the change and having it recorded means people just do it when they think about it rather than waiting to later and forgetting about it.” (Matt Brown, Technical Architect, IBSA)

**Application Dependency Mapping.** “We had started a custom solution for application mapping with technical diagrams. That was totally a manual process so it was not getting done, updates were not documented. So, Samantha looked like the same type of database that we were building custom. We saw what was in Samantha, so John (the programmer) didn’t have to do any further development.” (Shirley Williams, Manager Technical Architecture, IBSA)

**Change Effectiveness Ratings.** “Certainly changes caused an improvement. ‘How we think about things’.” (Matt Brown, Technical Architect, IBSA)

**Automated Change and Contract Expiration Notifications:** Most all of the interviewees acknowledged they relied on the automated e-mail notifications to know what is going on in the environment.

**THE BUSINESS IMPACT**

Throughout this paper we have listed numerous qualitative benefits from governance programs as evidenced the testimonials of the IT departments. Figure 4 lists some summary
qualitative statistics from their respective programs. Having the ability to pull these metrics is another benefit.

**Figure 4**
Summary Statistics and Metrics from Case Company Governance Activities

<table>
<thead>
<tr>
<th></th>
<th>Hunt Petroleum</th>
<th>MetroPCS</th>
<th>Interstate Batteries</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Formal Policy &amp; Procedure</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>Change Windows per Week</strong></td>
<td>2</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td><strong>Change Meetings per week</strong></td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Change Advisory Board Meetings per week</strong></td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Notice Required Before Making a Change</strong></td>
<td>2 days</td>
<td>14 days</td>
<td>1 day</td>
</tr>
<tr>
<td><strong>Change Effectiveness Rating</strong></td>
<td>99.57%</td>
<td>99.55%</td>
<td>99.12%</td>
</tr>
<tr>
<td><strong>% of Changes that Follow the Normal Procedure</strong></td>
<td>79%</td>
<td>73%</td>
<td>34%</td>
</tr>
<tr>
<td><strong>% of Changes that have Urgencies</strong></td>
<td>11%</td>
<td>25%</td>
<td>60%</td>
</tr>
<tr>
<td><strong>% of Changes that were done without advance notice</strong></td>
<td>10%</td>
<td>2%</td>
<td>6%</td>
</tr>
<tr>
<td><strong>Mean time between failures (MTBF)</strong></td>
<td>4d 22h 33m</td>
<td>4d 22h 37m</td>
<td>Not tracked</td>
</tr>
<tr>
<td><strong>Mean time to recover from an outage (MTTR)</strong></td>
<td>7 hrs 52 min*</td>
<td>6 hrs 42 min</td>
<td>Not tracked</td>
</tr>
<tr>
<td><strong>Test Plans Required</strong></td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>Implementation Plans Required</strong></td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>Controls Implemented</strong></td>
<td>No</td>
<td>Yes**</td>
<td>No</td>
</tr>
</tbody>
</table>

* Excluding extended outages due to Rita and Katrina disasters
** Change effectiveness rating > 95%, Normal changes > 70%, Urgent changes < 30%, Changes without notice < 5%
SUMMARY: 10 LESSONS LEARNED

Lesson #1: Just Get Started

All of the organizations recognized they had an opportunity to improve their internal governance under an ITIL framework, but in a controlled, limited approach.

Lesson #2: Size Doesn’t Matter

In the final analysis, there are just as many advantages as disadvantages in implementing governance in smaller organization. Do not feel like you cannot obtain improved governance just because you are small.

Lesson #3: Start Where it Makes Sense

All of the organizations and individuals had different motivations to get started. There is no right answer. Ultimately, you have to be flexible and adapt to your unique situation.

Lesson #4: Recognize the High Value in Change Management

Keep your program operational and look for ways to leverage on-going changes.

Lesson #5: Plan the Fight against Resistance

Expect people to resist the change. Plan to combat this up-front with novel ways and novelties to help people support your initiative.

Lesson #6: Listen to What the Data Tells You

Use the metrics to validate how things are going. It is too easy to become myopic and overlook statistical facts. Be prepared to look hard at yourself.

Lesson #7: Have Fun

The companies used numerous fun techniques to help people adopt the governance changes. The “Rambo Poster” prize was conceived by the IT employees at Hunt to “reward” one of their peers for making changes without properly informing those parties who would be adversely
effective by their actions. While meant to be “humorous,” the message is quite serious:
‘Changes must be effectively communicated before being implemented.’ The Rambo Poster
remains in the recipient’s office until it is “won” by someone else. This type of award works well
at Hunt, where the culture supports this type of “fun atmosphere.”

Lesson #8: Stay Aligned with the Business

If your company requires a responsive environment, implement looser controls. Be careful not to
push the envelope further than the company culture or past where measurable benefits are
achieved. However, set aggressive controls to achieve faster results.

Lesson #9: Internal and External Communication is Essential

Involve the entire IT department with governance changes. Look for how you can advertise the
benefits and successes of your program across many levels of the organization.

Lesson #10: Effective ITIL alone does not prevent the “Career Is Over” syndrome.

Implementation of IT governance may not improve your tenure as the CIO – there was a
leadership change within one of the case companies; so don’t overplay the importance of
improved governance against the daily requirements to build teams, deliver services and
demonstrate value.
REFERENCES


Lindquist, Cl, "The Advantage of Working Dangerously", CIO Magazine, August 1, 2005


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